

PRELIMINARY NOTES TOWARDS A REVISION OF THE MYGALOMORPH SPIDER GENUS *DYARCYOPS* (CTENIZIDAE)

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Abstract

Distinguishing features of the genera *Arbanitis* L. Koch and *Dyarcyops* Hogg are given. A number of species formerly included in *Arbanitis* are transferred to *Dyarcyops*. A provisional list of the named species of *Dyarcyops* is given and their former generic position and synonyms indicated. It is suggested that *Dyarcyops* also occurs in New Guinea and New Zealand.

Introduction

Species of the two genera *Arbanitis* L. Koch 1874 and *Dyarcyops* Hogg 1902 are frequently confused and placed in the wrong genus. Differences between the two genera have already been noted by Main (1964, 1967) when *Arbanitis fuscipes* Rainbow was at the same time attributed to *Dyarcyops*. *A. gracilis* Rainbow & Pulleine was also placed in *Dyarcyops* by Main (1967) and later *Arbanitis pulchellus* was transferred to *Dyarcyops* (Main 1972). In the natural history book "Spiders" (Main 1976), the species *A. hirsutus* Rainbow & Pulleine was referred to as *Dyarcyops hirsutus*. In the above publications it was not appropriate to discuss the rationale for such nomenclatural changes. Justification for the revised status of the above species is here briefly explained. A fuller account of the species is to be presented elsewhere in a revision of the ctenizid genera of Australia (in preparation).

In the meantime because of the general confusion between the two genera, I include here a provisional list of the "revised" species of *Dyarcyops* (see Table I). Documentation of data on individual species diagnostic features, type specimens, field data and distribution is to be presented later. *Dyarcyops* ranges from New Guinea to Tasmania and westward in the south as far as Adelaide. It is particularly abundant in south eastern Queensland and the eastern half of New South Wales. Specimens are frequently presented for specialist identification and entomologists are hampered because of the lack of any recent revision of the genus. Thus the present provisional or "working list" is intended to serve as a practical guide. A great deal more work needs to be done on the biology of the genus to confirm the suggested status of some of the species.

Distinction between *Arbanitis* and *Dyarcyops*

Specimens of the type species of *Dyarcyops*, *Dyarcyops andrewsi* Hogg, were collected by me in December 1954 from the type locality Mt. Compass, South Australia (BYM 1954/542, 543, 544). In 1958 I examined the holotype of *D. andrewsi* in the British Museum of Natural History. Features noted on the holotype and the above specimens and the biology of *D. andrewsi* formed the basis for distinguishing the genus *Dyarcyops* from the earlier described *Arbanitis*. To these distinguishing features other characteristics were later added from observations on many species. The most obvious differences between the two genera are:

(1) *Arbanitis*. Carapace and legs glabrous, sparsely hairy. The carapace is broad, with rounded sides; high caput and deeply procurved fovea (at least in female). Rastellum of stout teeth. Eyes in compact group with two rows close together and slightly raised in mid region. Legs relatively short and stout, usually heavy ventral spines on palp and first two pairs of legs (especially tarsus and metatarsus), scopula dense or sparse. Sternum broad, posterior sigilla large, conspicuous and well away from margin. Male lacks an apophysis on tibia I (except *A. tasmanica* which may more appropriately be placed in *Cantuaria*). Burrow always closed by a door.

(2) *Dyarcyops*. Carapace and legs not particularly glabrous, carapace often with dense pile of hairs which may have a golden sheen, carapace relatively narrow with gently curved margins; caput not so strongly arched as in *Arbanitis*; fovea usually only slightly procurved. Rastellum of few teeth which are long and tapering. Eyes relatively widely spaced, arrangement may appear square rather than rectangular, AME often well behind ALE. Legs relatively long and slender, hirsute; ventral spines fewer and more slender than in *Arbanitis*, tarsus often with only two, three or no spines; scopula dense; lateral faces of legs frequently with conspicuous dark "pencil" marks on the long axis of the joints particularly the metatarsi and tibiae. Sternum not so wide in mid region, posterior sigilla small, often round and close to margin. The general appearance is that of a diplurine rather than a typical ctenizid. Male usually with an apophysis on tibia I. Burrow usually without a door (*D. gracilis* is a notable exception).

On the above criteria many species that were formerly attributed to *Arbanitis* should be transferred to *Dyarcyops*. There are also several unnamed species, established on biological features (such as lack of door) as belonging to *Dyarcyops* occurring in southeast Queensland, northern New South Wales and southern Victoria.

Note on *Dyarcyops ornata* Rainbow

Idioctis ornata Rainbow, which is not a barychelid but a species of *Dyarcyops* (as defined above) has already been referred to as *Dyarcyops ornata* (Main, 1976). I saw the type specimens of *I. ornata* (four males and one female, lodged in the Australian Museum) in 1954 and noted that they had the features of a ctenizid. Patricia Webb later also examined the type specimens of *I. ornata* and corroborated that the species was not a barychelid (*in litt.* 1961). She also suggested that it was the same species as that later described by Rainbow and Pulleine as *Aganippe ornata* (of which species I have not seen the type). These two species are herewith synonymised and the new combination *Dyarcyops ornata* (Rainbow) confirmed.

I also examined male and female specimens of *D. ornata* collected by Patricia Webb from near Eidsvold, the type locality of both the above nominal species. These specimens are lodged in the Entomology Department of the University of Queensland. Further, in April 1965 I collected female specimens from Eidsvold (BYM 1965/120, 121, 147, 148, deposited in the Zoology Department of the University of Western Australia).

Table I lists the named species of *Dyarcyops*; the original name and revised status of each species is given. The list includes one species from Papua but

TABLE I

Species of *Dyarcyops*, their former generic position and synonyms

Nominal species

Revised status

♀ <i>Dyarcyops andrewsi</i> Hogg 1902	= <i>Dyarcyops andrewsi</i> Hogg 1902 [type species]
♀ <i>Arbanitis chisholmi</i> Hickman 1933	= <i>Dyarcyops fuscipes</i> (Hickman 1933) [new synonymy]
♀ <i>Arbanitis elegans</i> Rainbow & Pulleine 1918	= <i>Dyarcyops elegans</i> (Rainbow & Pulleine 1918) [new combination]
♀ <i>Arbanitis fuscipes</i> Rainbow 1914	= <i>Dyarcyops fuscipes</i> (Rainbow 1914) [see Main 1964, 1967, 1976]
♀ <i>Arbanitis gracilis</i> Rainbow & Pulleine 1918	= <i>Dyarcyops gracilis</i> (Rainbow & Pulleine 1918) [see Main 1967, 1976]
♀ <i>Arbanitis hirsutus</i> Rainbow & Pulleine 1918	= <i>Dyarcyops hirsutus</i> (Rainbow & Pulleine 1918) [see Main 1976]
♀♂ <i>Arbanitis mestoni</i> Hickman 1928	= <i>Dyarcyops mestoni</i> (Hickman 1928) [new combination]
♂♀ <i>Arbanitis montanus</i> Rainbow & Pulleine 1918	= <i>Dyarcyops fuscipes</i> (Rainbow 1914) [new synonymy]
♀ <i>Arbanitis pulchellus</i> Rainbow & Pulleine 1918	= <i>Dyarcyops pulchellus</i> (Rainbow & Pulleine 1918) [see Main 1972]
♀ <i>Arbanitis papilliosus</i> Rainbow & Pulleine 1918	= <i>Dyarcyops</i> sp. [possibly an aberrant specimen of <i>D. pulchellus</i>]
♂♀ <i>Arbanitis scaurus</i> Hickman 1927	= <i>Dyarcyops scaurus</i> (Hickman 1927) [new combination]
♂♀ <i>Arbanitis villosus</i> Rainbow 1920*	= <i>Dyarcyops villosus</i> (Rainbow 1920) [new combination]
♂ <i>Arbanitis bradleyi</i> Rainbow 1920*	= <i>Dyarcyops villosus</i> (Rainbow 1920) [new synonymy]
♀ <i>Aganippe ornata</i> Rainbow & Pulleine 1918	= <i>Dyarcyops ornata</i> (Rainbow 1914) [new synonymy]
♀ <i>Dyarcyops biroi</i> Kulczynski 1908	= <i>Dyarcyops biroi</i> Kulczynski 1908 [= possibly <i>D. fuscipes</i> (Rainbow)]
♂♀ <i>Dyarcyops melancholicus</i> Rainbow & Pulleine 1918	= ? <i>Dyarcyops fuscipes</i> (Rainbow 1914) [new synonymy]
♀ <i>Dyarcyops ionthus</i> Rainbow & Pulleine 1918	= <i>Dyarcyops fuscipes</i> Rainbow (1914) [new synonymy]
♀ <i>Dyarcyops maculosus</i> Rainbow & Pulleine 1918	= <i>Dyarcyops maculosus</i> Rainbow & Pulleine 1918
♀♂ <i>Dyarcyops robertsi</i> Main & Mascord 1974	= <i>Dyarcyops robertsi</i> Main & Mascord 1974
♂ <i>Megalosara villosa</i> Rainbow 1914†	= <i>Dyarcyops fuscipes</i> (Rainbow 1914) [new synonymy, nomen oblitum]
♂♀ <i>Idiactis ornata</i> Rainbow 1914	= <i>Dyarcyops ornata</i> (Rainbow 1914) [see Main 1976]
♀ <i>Idiactis papuensis</i> Rainbow 1920*	= <i>Dyarcyops villosus</i> (Rainbow 1920) [new synonymy]

* Papuan species.

† Although the name *Megalosara villosa* appears on an earlier page of the same publication as that in which *D. fuscipes* (Rainbow) is described it is preferable, in accordance with Article 24a of the International Code of Zoological Nomenclature to give priority to *fuscipes*. The name *Megalosara villosa* requires suppression. (This is more fully discussed in the revision of Australian Ctenizidae, in preparation).

no New Zealand species although I believe that some of the species placed by Forster (1968) in *Cantuarina* should be transferred to *Dyarcyops*. I recognise unequivocally eight named Australian species of *Dyarcyops*, and one from Papua as follows (type localities given in brackets after each species): *D. andrewsi* (Mt. Compass, S.A.), *fuscipes* (Willoughby, North Sydney, N.S.W.), *gracilis* (Domain, Sydney, N.S.W.), *hirsutus* (Kedron Brook, Qld), *mestoni* (Woodsdale, Tasm.), *ornatus* (Eidsvold, Qld), *pulchellus* (Tamborine Mt., Qld), *scaurus* (Westmoreland Falls, Mole Creek, Tasm.), *villosus* (Papua). The validity of the following two is questionable as they may be synonyms of *fuscipes*: *D. biroii* (Mt. Victoria, Blue Mts., N.S.W.), *maculosus* (La Perouse, Botany Bay, N.S.W.).

It is possible that *Arbanitis maculipes* Hogg [= *Arbanitis annulipes* (C. Koch)] has some affinity with *Dyarcyops*. However I believe it to be quite distinct from other Australian species groups including those in *Arbanitis* and consider that it possibly warrants placement in a genus by itself.

Acknowledgements

Thanks are due to the staff of the following institutions for facilities and making types and other specimens available for examination during my investigations on *Arbanitis* and *Dyarcyops*; British Museum of Natural History, Australian Museum, Entomology Department of the University of Queensland, Queensland Museum.

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